Amendments to the Claims:

Please add new claims 19-36. Following is a complete listing of the claims pending in the application, as amended:

1-6. (Canceled)

7. (Previously Presented) A method for discriminating an optical storage medium, comprising:

accessing synchronous data from a predetermined range of the optical storage medium;

configuring a clock frequency of a PLL at a rate based on the accessed synchronous data to enable further data to be read from the optical storage medium; and

comparing the clock frequency with a frequency threshold to discriminate a type of the optical storage medium so that the further data can be read.

8. (Original) The discrimination method according to Claim 7, wherein the optical storage medium is discriminated as a DVD when the clock frequency is larger than the frequency threshold.

9. (Original) The discrimination method according to Claim 7, wherein the optical storage medium is discriminated as a CD when the clock frequency is smaller than the frequency threshold.

10. (Original) The discrimination method according to Claim 7, wherein the comparing step comprises a step of determining the optical storage medium as a blank disk when the clock frequency is substantially zero.

11-18. (Canceled)

19. (New) An apparatus for discriminating a type of an optical storage medium, comprising:

a PLL clock having an adjustable clock frequency;

a data access component that accesses synchronous data from a specified range of the optical storage medium;

a configuration component that configures the clock frequency of the PLL clock based on the accessed synchronous data; and

a comparison component that compares the configured clock frequency of the PLL clock with a frequency threshold to discriminate the type of the optical storage medium so that further data can be read from the optical storage medium.

20. (New) The apparatus of claim 19 wherein the optical storage medium is discriminated as a DVD when the clock frequency is larger than the frequency threshold.

21. (New) The apparatus of claim 19 wherein the optical storage medium is discriminated as a CD when the clock frequency is smaller than the frequency threshold.

22. (New) The apparatus of claim 19 wherein the optical storage medium is discriminated as blank when the clock frequency is substantially zero.

23. (New) An apparatus for discriminating an optical storage medium, comprising:

an access means for accessing synchronous data from a specified range of the optical storage medium;

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a configuration means for configuring a clock frequency of a PLL clock at a rate
based on the accessed synchronous data; and

a comparison means for comparing the configured clock frequency of the PLL
clock with a frequency threshold to discriminate a type of the optical
storage medium so that further data can be read from the optical storage
medium.

24. (New) The apparatus of claim 23 wherein the optical storage medium is
discriminated as a DVD when the clock frequency is larger than the frequency
threshold.

25. (New) The apparatus of claim 23 wherein the optical storage medium is
discriminated as a CD when the clock frequency is smaller than the frequency
threshold.

26. (New) The apparatus of claim 23 wherein the optical storage medium is
discriminated as blank when the clock frequency is substantially zero.

27. (New) A method for discriminating a type of an optical storage medium,
the method comprising:

computing a distance between a reflection layer of the optical storage medium
and a surface layer of the optical storage medium;

determining a distance error of the computed distance between the reflection
layer of the optical storage medium and the surface layer of the optical
storage medium;

if the distance error is less than a failure threshold, comparing the computed
distance with a distance threshold to discriminate a type of the optical
storage medium; and

if the distance error is greater than the failure threshold, using an alternate method to discriminate the type of the optical storage medium.

28.   (New) The method of claim 27, wherein the optical storage medium is discriminated as a DVD if the computed distance is smaller than the distance threshold.

29.   (New) The method of claim 27, wherein the optical storage medium is discriminated as a CD if the computed distance is larger than the distance threshold.

30.   (New) The method of claim 27, wherein the alternate method comprises:
reading multiple data transition points from a specified range of the optical storage medium; and
determining a dimension of multiple transition regions in the specified range of the optical storage medium, the transition regions being an interval between neighboring data transition points.

31.   (New) The method of claim 30, wherein the data transition points are edges of lands on the optical storage medium.

32.   (New) The method of claim 30, wherein the alternate method further comprises:
obtaining a longest transition region in the multiple transition regions; and
comparing a dimension of the longest transition region to a transition region threshold to discriminate the type of the optical storage medium.

33.   (New) The method of claim 31, wherein the compared dimension is a time consumption of the longest transition region and the transition region threshold is a time threshold.

34.   (New) The method of claim 33, wherein the optical storage medium is discriminated as a DVD when the time consumption is smaller than the time threshold.

35.   (New) The method of claim 27, wherein the alternate method comprises:

accessing synchronous data from a specified range of the optical storage medium;

configuring a clock frequency of a PLL at a rate based on the accessed synchronous data to enable further data to be read from the optical storage medium; and

comparing the clock frequency of the PLL with a frequency threshold to discriminate the type of the optical storage medium so that the further data can be read.

36.   (New) The method of claim 35, wherein the optical storage medium is discriminated as blank if the clock frequency is substantially zero.